PORTABLE
"K"

Installing and Operating Directions for

PORTABLE "K"

The Fischer Electro-Therapeutic
Portable Cabinet

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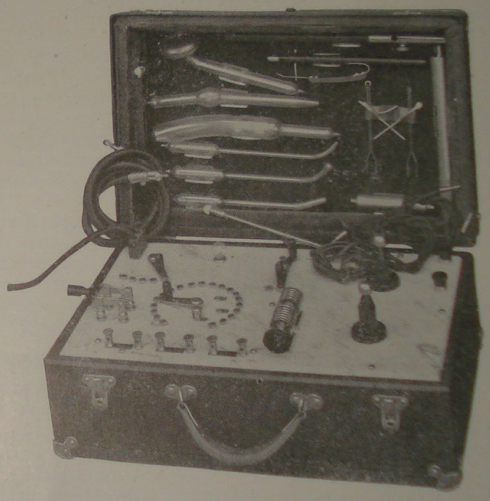
Operating Instructions for the Portable "K" Electro-Therapeutic Apparatus

Carefully unpack the box containing the instrument and accessories, and check each item on the Packing List. Report any shortages at once, *unless not checked* (items *not checked are not included* in the shipment) and we will give same prompt attention.

In case of damages to Case or Parts, due to careless handling by the transportation companies, please have their representative go over the outfit with you, and send us a "Bad Order Receipt" to enable us to put in proper claim.

The complete equipment consists of :—

1	No. 486	Generator, with Connecting Cord and Plug,
1	No. 1	Surface High Frequency Electrode,
1	No. 2	Rectal High Frequency Electrode,
1	No. 3	Vaginal High Frequency Electrode,
1	No. 4	Nasal High Frequency Electrode,
1	No. 5	Throat High Frequency Electrode,
1	No. 16	Urethral High Frequency Electrode,
1	No. 50	Handle for High Frequency Electrodes,
1	No. 51	Heavy Insulated High Frequency Cord,
1	No. 410	Auto Condensation Chair Pad,
1	No. 411	Regulating Lamp and Clamp.
1	No. 412	Color Scale,
1	No. 52	d'Arsonval Handle,
2	No. 312	Sinusoidal Handles,
2	No. 311	Sinusoidal Cords,
1	No. 316	Sinusoidal Spongio Disc,
1	No. 321	Diagnostic Illuminator with Cords, Holder and Tungsten Lamp,
1	No. 301	Cautery Handle, adjustable,
1	No. 305A	Cautery Knife,
1	No. 305B	Cautery Knife,
2	No. 306	Cautery Cords,
1	No. 614	Hand Diathermy Electrode,
1	No. 20	Fulguration Electrode Handle,
3		Tips for Fulguration Handle.



No. 486

Fischer Portable "K" Electro - Therapeutic Outfit

This Portable Electro-Therapeutic Outfit is built to operate on the 110 Volt, 60 Cycle, Alternating Current, and unless the shipment is plainly marked otherwise should never be connected to any other source of supply. The plug on the black connecting cord may be screwed into the ordinary lamp socket. The machine is then ready for use.

In order that a better understanding may be had in reference to the question "What Are High Frequency Currents," we submit the following The question is made very clear by comparison with water:

In our demonstration we will assume that the *voltage* will be the *pressure* at the hydrant. When we increase the pressure we increase the amount of water we can draw, due to the increased speed with which the water flows.

The voltage obtained from Type "K" portable Electro-Therapeutic Cabinet is approximately 65,000, or 650 times the voltage of the average lamp used. If you were to touch both terminals in a lamp socket, you would receive a severe muscular shock, though the voltage of the current would be only one-six hundred and fiftieth part of the discharge from this coil.

Increase the water pressure at the hydrant 650 times and the result would be that upon opening the faucet a stream of water would travel at such speed that anything brought into contact with it would be struck as with a blow from a sword.

This same condition would prevail if electrical currents of 65,000 volts were permitted to enter the human body. It would be as a sword thrust that would cleave from head to heel.

Now let us take this tremendous pressure and force the water through an atomizer with hundreds of thousands of tiny holes. The result would be a mist of spray that would permeate the entire surrounding atmosphere. In the generation of High Frequency Currents an electrical condenser is connected in the circuit, acting as does the atomizer in separating the flow into minute impulses, of such rapid succession that no sensation affects the nervous centers. Likewise there is no muscular contraction.

The human nervous system can detect oscillations in an electrical current up to 10,000 per second, and as the *frequency increases* the *sensation decreases.* The "K" Portable has a frequency output of *one million per second.*

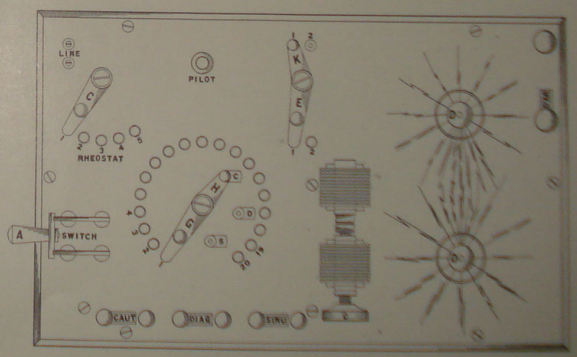
The physician therefore has at his command a tremendously powerful agent which he can *safely apply* to his patients, giving them in a few moments more benefit than in hours with the one time popular battery outfit.

This High Frequency Current is delivered by our portable in various ways, viz., by means of the glass vacuum electrodes, the d'Arsonval method, using the Auto-Condensation Chair Pad, a modified Diathermy as described in the following, Fulguration, etc.

FOR HIGH FREQUENCY CURRENTS

For High Frequency Currents, for use with the Glass Vacuum Electrodes, set levers "C," "E" and "K" on points 1.

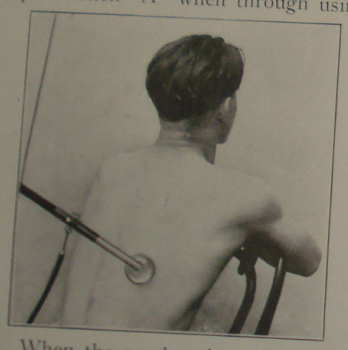
Lever "C" is Rheostat Control, and governs the amount of current entering the machine; point 1 being lowest, and point 5 highest amount of power.



Lever "E" controls the Condenser, and the oscillations or Frequency on point 1 will be over twice as great as point 2; point 1 to be used for Fulguration and Internal Treatments, and point 2 for External massage. The Higher the Frequency, the smoother the current discharge.

Lever "K" controls the length of the spark, point 1 weakest, and point 2 strongest setting.

Close spark interrupter points with regulating screw "B," and then open slightly; not over one-sixth of a turn. Connect the heavy insulated black cord to either of the active posts "D" and to the connector ring on the insulated handle. Clamp electrode desired in the handle, and hold the fibre insulated end as far from the metal as possible to avoid unnecessary shocking. Throw in switch "A," and regulate strength of current by means of spark interrupter "B". Be careful to open switch "A" when through using outfit.



Application of High Frequency

When the spark points "B" are closest together the Frequency of the discharge is highest. The wider these points are separated the slower and more powerful will be the impulses, up to a certain point when the voltage of the transformer is not high enough to span the gap, and the discharge will cease. Always be sure to test the current on yourself before applying same to your patient.

A more powerful, medium High Frequency Current is obtained with lever "E" on point 2. A longer spark discharge with lever "K" on point 2. Regulate at all times with spark interrupter points "B."

CAUTION Never touch the metal parts of your cord or handle when same are in use.

Do not make or break connections with active pole without first cutting off the current with switch "A."

Never touch any levers or switches when holding an *active* electrode in the hand; *hold the handle*. Holding an active electrode, and touching a switch or lever completes a circuit, and is very apt to mean a severe shock.

High Frequency Vacuum Tube treatments are indicated generally in Infectious Skin diseases, and superficial conditions; and Internal infections that can be reached with electrodes.

FOR D'ARSONVAL Set lever "G" on point 1 or "OFF" point.
Set lever "K" on point 2.

AUTO CONDENSATION Set lever "E" on point 2.
Have spark points "B" nearly closed, as for High Frequency.

Set lever "C" on point 1 at start of treatment, and increase current by advancing same to any button up to number 5. (Point 1 is *minimum;* point 5 *maximum.*)

Never change setting of lever "C," "K" or "E" without first breaking current at switch "A".

See that switch "A" is open. Connect heavy maroon cords to binding posts marked "d'Arsonval." Fasten one cord to Auto Pad and other to long nickel plated handle. Have patient sit firmly back against the pad, and also hold firmly to handle, using *both hands.*

Treating Tuberculosis of the Lungs with D'Arsonval Current

When giving the d'Arsonval treatment with chair pad, the long handle should be grasped firmly with both hands and care should be taken that the cords do not touch or hang near the body at any point. It is well to have the hands supported away from the body, so that there will be no danger of sparks passing across. These sparks will not only prove annoying, but are apt to burn the patient as well.

This chair pad can be used in the reclining position on a table as well. To obtain the very best of results from this treatment, the patient should be made as comfortable as possible, a condition of utter relaxation being ideal if possible. For that reason, the patient reclining on the pad will derive

more benefit than if asked to sit up during treatment. Certainly the position should depend entirely on the *physical* condition of the patient. Always shut off the current before letting patient drop the handle, and *never* permit the patient to drop the handle *with the current on,* as a spark sufficient to burn the skin will result.

To regulate strength of current adjust spark points as for High Frequency. Remember, the closer the points are adjusted, one to the other, the higher will be the rate of Frequency or oscillations, and the smoother the current.

To ascertain the amount of current being delivered, by means of the Color Scale sent with the outfit; open switch "A" and break connection from machine to metal handle, and fasten cord to small binding post on end of the lamp furnished. The tip on the nickel plated clip should now be inserted into the clamp on the end of the long handle, and the clip itself snapped over the brass threaded portion of the lamp.

Now seat the patient as before, start the current the same way, and you will find the lamp glow to different shades of color, depending on the settings of levers "C" and "E" and the adjustment of spark points "B." The more current passing, the brighter will be the shade. While the current is passing through the lamp (in series with the patient), hold the color scale close up and match lamp color to some one of the numbered shades.

As an example; should you desire 500 Milli-Amperes, and the lamp color matches shade marked 450 or perhaps 525, either increase or decrease the amount of discharge by means of spark points "B." To increase—open points somewhat, to decrease—bring points closer together.

Regulation of this current can also be obtained with lever "E" which when set on point 2 gives the strongest D'Arsonval current and when set on point 1 weakens the current.

The lamp should be used for testing purposes only, and when the desired setting is obtained should be removed from the circuit, and connection should be made as before, that is, direct from the machine to the handle. The resistance of this lamp cuts down the current to the patient about 20% and the operator should figure accordingly.

REDUCING HIGH BLOOD PRESSURE The d'Arsonval Current as delivered through the chair pad mentioned above, will reduce high arterial pressure. It is necessary to give a number of treatments before any lasting results can be obtained, as although the sphygmomanometer reading before and after treatment will show conclusively that (in most cases at least) the pressure has been lowered, this pressure will again come back to the high point, within a very short time. Each treatment will serve to reduce the pressure a little more than the previous sitting, and if a lasting result is to be obtained, it will be necessary to give several treatments even after the pressure has been reduced to the point desired in order that the pressure will remain at that point.

After the pressure has been brought back to normal, it is advisable to taper off on the treatments, that is, give each treatment a slightly lower milliamperage of current.

After a few d'Arsonval Treatments, the spark points "B" should be cleaned as follows:

TO CLEAN SPARK INTERRUPTER POINTS Generally any irregularity in the discharge of High Frequency or d'Arsonval Currents can be traced directly to the spark interrupter points, as after using the machine for heavy discharge for any considerable length of time these spark points may become carbonized, and if this condition is ignored, pitting of the silver itself will result.

To clean these points, wet with *saliva* the corner of a card and slide between points until both surfaces are thoroughly moistened; then burn off the moisture with the current, by closing switch "A." *Have no electrode in the circuit when cleaning points, nor do not have patient connected with Auto Pad with lamp in circuit.* Repeat the cleaning process two or three times and you will find a considerable quantity of carbon adhering to the card. Work regulating screw "B" back and forth during this process. This will serve to take up most all foreign matter which may be present in the form of carbon. You will note the very fine control of your High Frequency Current after cleaning in this manner.

Should your points become exceedingly rough at any time, you may have to resort to the sand paper method of cleaning. Take a small piece of very fine sand paper and fold same back to back so that you have a rough surface exposed on both sides. Insert this carefully between the points; close adjusting screw "B" gently, and slightly withdraw the paper. Do not use this method more often than absolutely necessary as it wears down the points and is liable to make them uneven. A slight film of high grade sperm oil spread over the points after cleaning will suffice to keep down this formation of carbon, as it seems to temper or treat the silver surfaces and certainly goes a long way to prevent pitting. Be sure to open switch "A" each time you are through using the outfit.

DIRECT DIATHERMY The real true type of Diathermy discharge is of fairly low voltage, high milliamperage and exceedingly high frequency or rate of oscillations, and our portable will deliver this valued modality as well as any portable on the market, regardless of size or price, and even a better current than furnished from some of the high priced cabinets.

Set levers and make connection and regulate the same as for the D'Arsonval Auto-Condensation Current.

Fasten one cord to long nickel plated handle and the other to the special No. 614 hand electrode furnished with the equipment.

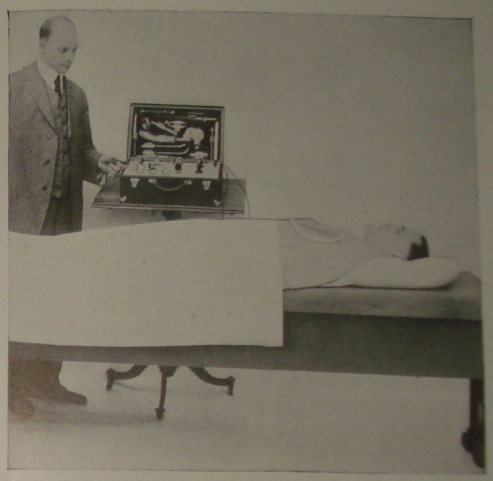
When the handle and electrode are placed in contact with the body at different points the Diathermic Current passes through the body from one to the other in a direct line, thus the course of the current through the body is regulated by the position of the handle and electrode.

Care should be exercised to place handle and electrode in contact with the body before turning on current and current must be turned off before removing handle and electrode.

The best results are obtained with the Diathermic current through use of special Diathermic electrodes. See pages 27 and 32.

MODIFIED DIATHERMY Indirect modified Diathermic Current is obtained by using the Auto-condensation Chair Pad as one of the electrodes. The patient is placed on the pad, usually in an upright position and the pad connected directly to the machine same as for d'Arsonval. The patient really forms one circuit of a condenser; the other connection is made either to the small round metal Diathermy disc or the special No. 614 hand Diathermy electrode furnished with the equipment.

If the round disc Diathermy electrode is used, it is placed directly over and in positive contact with the affected area, or a splendid heating effect can be obtained indirectly and with absolutely no electrical sensation to the patient by making connection to the long metal handle, holding same tightly and placing the closed hands over the area. When using the round metal disc, it is advisable to first reduce the natural



Treating Pneumonia, Modified Diathermy Current

electrical resistance of the skin itself by moistening with salt water.

To become accustomed to this treatment, it is best to try same on yourself. Take position on the pad, make connection to the No. 614 hand electrode, which owing to its construction will remain in positive contact with the palm of the hand and allow the fingers to remain free, and have some other party start the current through the machine. Start with a mild current, having levers "K" and "E" on points 2, lever "C" on points 1 or 2 and spark points "B" nearly closed. Then gradually increase the current by opening points "B" until a slight warmth is felt on the hand and wrist. Raise the hand

to the forehead, place the fingers over the bridge of the nose or between the eyes and note the smooth intense heating effect. Place the fingers back on the forehead, massage gently back and forth, and the first trial on your part will convince you, unless unusually skeptical, that any congestion from most any cause whatever must yield to that type of treatment.

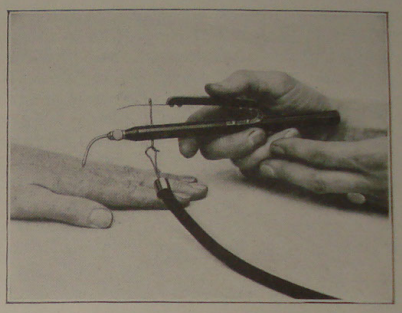
The same technique may be followed over the neck; the abdomen, chest, and in fact over any part where it is desirable to generate heat. It is advisable, although not absolutely necessary, to remove the clothing from the part under treatment.

A simple and very effective method of applying this "Modified Diathermy" as a general tonic to the limbs is to place the hands or feet in a tray or other container filled with water, to which a small amount of salt has been added, and connect the fluid to the machine in the same manner as you would the handle or Diathermy discs.

See illustration on page 20

CAUTION Always shut off the current before letting patient drop the handle, and *never* permit the patient to drop the handle *with the current on,* as a spark sufficient to burn the skin will result.

FULGURATION This very valuable modality is best considered as being in two distinct forms, the long cooled sparks as applied from the tesla coil, poles "D," and the short hot sparks from the d'Arsonval windings. For ordinary treatments as illustrated herewith, connect the heavy black insulated cord to the ring on the No. 20 fulguration handle, and the other end to either of poles "D." With lever "C" on point 1 or 2, you will have sufficient power for all treatments. Be sure that levers "K" and "E" are on point 1 and the spark points "B" almost closed.



Application of Fulguration

To increase the length of spark, never move levers "K" or "E," but adjust as far as possible, first with points "B" and farther with lever "C." Each time when lever "C" is advanced (*always with switch "A" open*), be sure that spark points "B" are closely adjusted. As an example: set lever "C" on point 1, open spark points "B" to deliver maximum current at that setting; then open switch "A," set lever "C" on 2, all but close spark points "B," and you will find the current a trifle stronger than when lever "C" was on point 1 and points "B" wide open. It is a gradual step and any power can be obtained.

It is advisable to use an anesthetic, locally, before applying the fulguration electrode, as the spark has a hot caustic effect and really sears its way into the tissues, making the treatment too painful for ordinary cases, unless cocaine or some other agent is employed first.

Apply electrode point (three are included with the handle), directly to the part to be treated, and make contact with the spring lever using index finger or thumb. To alleviate the resulting pain as much as possible where sensitive tissues are being encountered and where no local anesthetic is being used,

bring the point to the surface of the skin and quickly remove it beyond sparking distance; all this with spring lever pressed down. Several short applications like this of two or three seconds at the most, generally suffice in obtaining the desired result with this method. When shorter and hotter sparks are desired, set the patient on the chair pad and instead of connecting the other wire to the handle fasten it to the fulguration electrode, one wire is to connect from the d'Arsonval post to the chair pad, and the other from the d'Arsonval post to the fulguration handle. Dr. Eberhart has written a thorough chapter on Fulguration Treatments in his latest book, and we take pleasure in referring you to it for complete information on the subject.

CAUTERY See that switch "A" is open.
See that the Spark Points "B" are open about 1/16 inch. (Turn regulating screw to left to open
See that lever "G" is on point 1 or "Off" point.
See that lever "C" is on point 1.
See that lever "H" is on contact "C."

By opening spark points "B," you automatically cut off the high tension currents, and levers "K" and "E" are out of the circuit entirely, as well as the high tension poles "D" and the d'Arsonval terminals. Use the heavy maroon cords same as used for d'Arsonval, and clamp tips firmly in posts marked "Cautery," and the other ends to binding posts on end of cautery handle. This handle has a switch for convenience in operating, and pressing the button closes the circuit to the knife.

Throw in switch "A" and press switch on cautery handle and advance lever "G" just far enough until the knife becomes a light cherry red. Do not advance the lever "G" too far and retain the pressure on the switch on handle, as there will be danger of burning out the knife.

If a greater degree of heat is desired for very short intervals, you may advance lever "G" a button or two farther, but then flash the current off and on by means of the cautery handle switch. If unable to obtain enough heat even with lever "G" clear over to the end or twelfth button, open switch "A," set "G" back to 1 and advance "C" to probably 3 or 4. Close switch "A" and advance "G" as before until the desired current is obtained. You may even advance lever "C" as far as point 5 as this extremely heavy current may be necessary for large special knives.

Proper method of applying Cautery

If your knife does not heat when connected and operated as above, try some other circuit to make sure you have current entering the machine. Look closely at levers "G," "H" and "C," to see if they are making good contact on the buttons. Also examine the blades and contacts of switch "A" to see that they are clean and fit snugly.

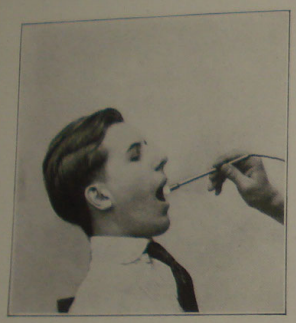
Your knife itself may even be at fault, the copper bars in which the tip is held possibly being jammed together in packing or shipping.

DIAGNOSTIC See that lever "G" is on point 1 or "Off" point.

See that lever "H" is on contact "D."

See that lever "C" is on point 1.

See that the spark interrupter points are separated same as for cautery.



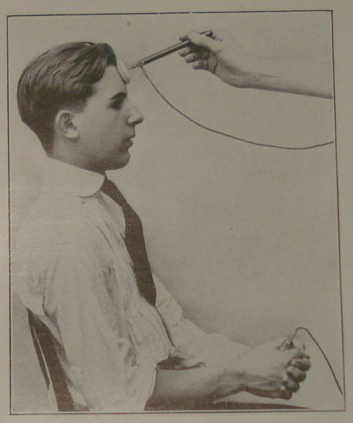
Diagnostic Lamp

Connect tips of diagnostic lamp cords to posts marked "Diag." Regulate the brilliancy of the lamp by means of lever "G." If advancing lever "G" clear around does not pass enough current to the lamp, open switch "A," advance lever "C" two or three buttons, and then again start with lever "G" on point one and increase as desired. Exercise great care not to advance lever "G" too far as the small diagnostic lamps burn out easily. Any other lamp for diagnostic purposes besides the one furnished with the machine may be used in the same manner, regulation being very fine and the capacity ample. The capacity ranges from one-half volt on point 2 to twelve volts on point 16.

SINUSOIDAL See that lever "G" is on point 1 or "Off" point.

See that lever "H" is on contact "S."

See that lever "C" is on point 1.

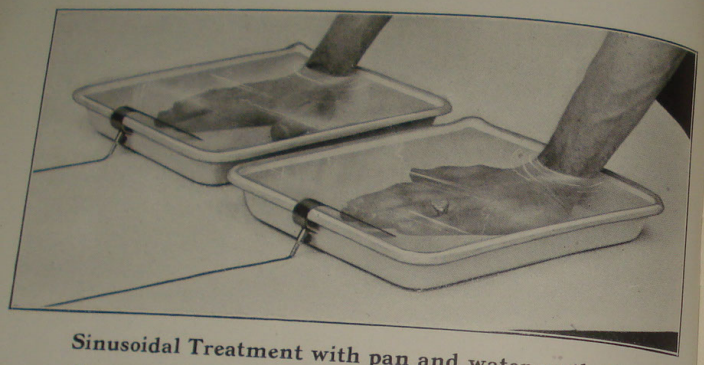


Application of Sinusoidal with Spongio Disc

Connect short nickel-plated handles with light maroon cords to posts marked "Sinu." Have patient grasp the handles firmly and graduate amount of current to patient by advancing lever "G" same as described under Cautery and Diagnostic.

More current may be obtained by advancing lever "C"—point one being lowest power, and point six highest.

A moist pad or Spongio Electrode as illustrated, can be used to advantage in many instances where the round handle would be found rather inconvenient.



Sinusoidal Treatment with pan and water method

The Sinusoidal Current is indicated in all forms of Paralysis or atrophied condition of the Muscles or Nerves, and in sluggish condition of the venous Blood, as in Varicose Veins, Ulcers, etc.

To obtain the best results in Paralysis of the arms, or upper body, immerse the hands in two pans or trays of water, to which you have added a small quantity of salt, connecting one pan to each side of the sinusoidal current outlets. Roll small pieces of lead foil around the cord tips before dropping them in the pans, or allow the No. 311 Handles to lay directly in the water. The No. 618 Liquid Bath Connector was especially designed for this purpose. This special connector is not furnished with the outfit, but can be procured for the sum of $0.50.

The same technique applies to the lower limbs by placing the feet in the trays. If it is desirable to use a stronger current on one limb than the other, place an extra quantity of salt in the tray where most current is wanted. The action of the salt reduces the electrical resistance of the skin and allows a more free passage of the current.

See description d'Arsonval, pages 7 to 9

Sinusoidal Current is *Contra-Indicated* in cases of *High Blood Pressure*. If your patient has an abnormal blood pressure always *reduce same first* by treating thoroughly with d'Arsonval.

Periodically Interrupted Sinusoidal Current may be obtained by opening and closing the knife switch as slow or fast as desirable, or if you wish, we can supply you with a Mechanical Interrupter. The price is reasonable.

Don't forget: always moisten the electrodes where possible, before giving treatments with this current, to insure best current and to overcome the resistance of the skin.

As a resume on the above, you will find that for Cautery you have twelve points of regulation, for Diagnostic sixteen points and for Sinusoidal twenty points. Each of these above points is controlled individually by lever "C," point 5 on lever "C" being about five times as strong as point 1, which gives you an even 100 points of control for the Sinusoidal.

OZONE Dr. Eberhart says "Whenever an electric spark passes through the air ozone is liberated."

Speaking of ozone Dr. Neiswanger says, "Much of the therapeutic value of electric currents applied to the body depends upon the generation of this agent. All currents produce it in a degree but the greater the frequency and the higher the voltage the greater its production."

One of the many uses of the high frequency current is as a blood purifier through the agency of ozone which is generated by the electric spark or spray and which seeks, with electricity as applied through the high frequency glass vacuum electrode, the path of least resistance which in the body is in the veins as they contain the conductable carbonates and impurities which are mostly in need of this purifying action of ozone.

In addition to this widely employed use of ozone is a method of employing it for inhalation through the use of an ozonizer as illustrated and described on page 29 of this booklet.

CATAPHORESIS Cataphoresis is the introduction of medicine through the unbroken skin by means of an electric current and for this purpose many successful physicians use an ordinary high frequency glass vacuum electrode in connection with suitable medicine but no doubt a larger measure of success can be obtained by using the special cataphoric electrode as illustrated on page 24 of this booklet.

CAUTIONS: Do not allow lever "G" to stop between points.

Do not make or break any connections with switch "A" closed.

Do not expect to get Cautery Current with lever "H" on point "D," or vice versa.

CORRECTING ERRORS IN OPERATING THE CAUTERY, DIAGNOSTIC AND SINUSOIDAL CIRCUITS

If machine should apparently "go dead," that is, you are unable to obtain any current from it, first unscrew connecting plug of the machine from the illuminating lamp socket, and try the current in same by inserting lamp. If the lamp fails to light, look for burned out fuse in the cut-out box where the current enters your office or building. (Fuses should be of 10 ampere capacity.)

Should your lamp light up when trying as above, again connect up the machine, but before closing switch "A," bend the contacts together slightly so that the blades of the switch fit in more snugly.

Should your knife still fail to heat when connected to Cautery circuit, test for trouble: Remove Cautery knife from the handle, and set lever "G" on point 6. Complete a short circuit with a knife blade or other piece of metal, across from one post on the handle to the other, and when making and breaking contact observe whether there is any sparking. If no sparks can be seen, you know the trouble is not in the knife, but somewhere nearer the machine. Now disconnect the wires from the handle, and still with lever "G" on point 6, touch the cord tips together, and watch for sparks.

The next step will be on the marble plate itself. You will notice that the small metal plate marked "Cautery" is clamped under one of the binding posts. Throw on your current again and touch the plate with one bar of the Cautery knife, and the opposite post with the other bar of the knife. Should even this fail to indicate the trouble, it should be reported to us at once.

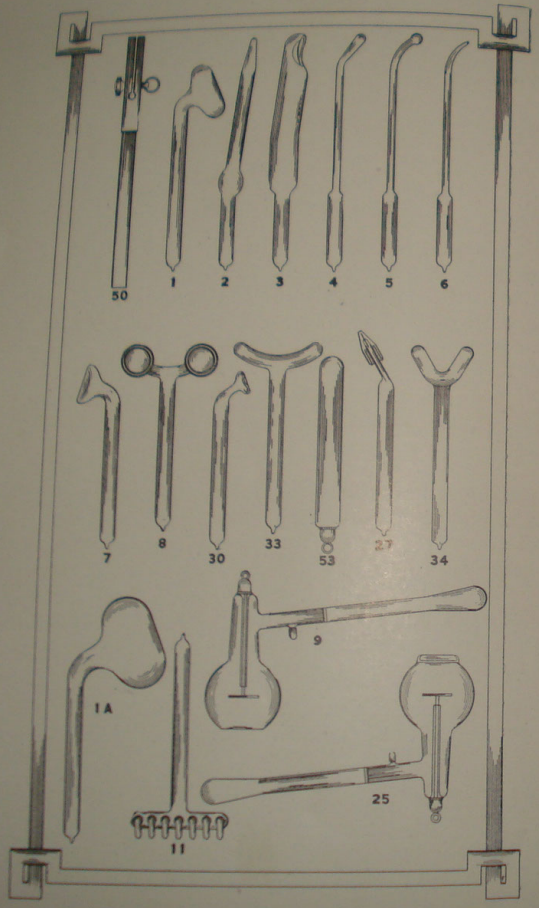
In making these tests, be sure that levers "G" and "H" make good contact on the buttons.

Much the same procedure can be followed with the Diagnostic and Sinusoidal Circuits. When your lamp fails to illuminate, first be sure it is screwed firmly into the socket. Or remove lamp entirely, and after setting lever "H" on point marked "D" and "G" on button 4 or 5, touch side of brass shell on base of lamp to name plate, and end of lamp to opposite post. Try also with metal lamp holder by making a short circuit from post to post, and watch for sparking.

If ever the binding posts appear "dead," with switch "A" closed and tested out as above, report to us at once.

PILOT LIGHT The pilot light indicates a closed circuit to the transformer, and you should always see that this light is out before leaving the machine.

Pilot Light Lamps $0.30 each.

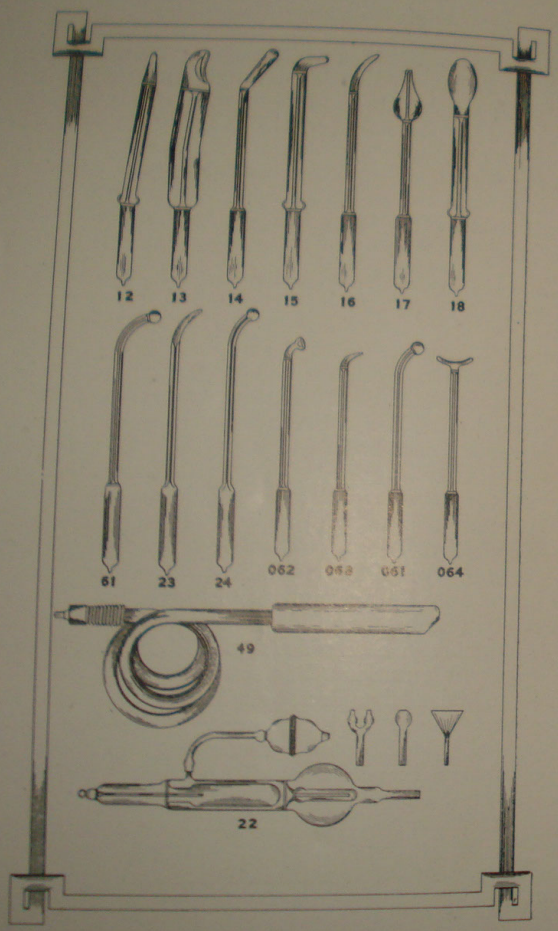


High Frequency Electrodes

All our glass high frequency electrodes are made by us, of the very best glass obtainable; carefully annealed. All sizes and makes of holders can be fitted on request, but unless otherwise specified our standard ⅝″ size is furnished on all orders. While the plain electrodes suffice for all surface or superficial cavity work, the insulated electrodes are preferred where deep seated areas are to be reached. The energy is confined to certain small areas only, and the section treated without leakage or waste of current.

All our electrodes are standard ⅝″ size, unless otherwise specified.

No.		Code	Price
1	—Surface Glass High Frequency Electrode.	*Bacca*	$0.75
1A	—Surface Glass High Frequency Electrode.	*Gram*	.75
2	—Rectal Glass High Frequency Electrode.	*Bagot*	.85
3	—Vaginal Glass High Frequency Electrode.	*Ballet*	.75
4	—Nasal Glass High Frequency Electrode.	*Balm*	.75
5	—Throat Glass High Frequency Electrode.	*Baric*	.75
6	—Urethral Glass High Frequency Electrode.	*Bark*	.75
7	—Single Eye Glass High Frequency Elec-	*Barley*	.75
8	—Double Eye Glass High Frequency Elec-	*Basal*	1.00
9	—Metal Disc Body Condenser Electrode.	*Basic*	3.00
11	—Comb (Scalp) High Frequency Electrode.	*Batia*	2.00
25	—Cataphoresis Electrode.	*Binder*	3.00
27	—Glass Fulguration (Vacuum) Electrode.	*Guad*	1.50
30	—Corn Glass High Frequency Electrode.	*Biogen*	.75
33	—Outer Throat High Frequency Electrode.	*Biotic*	.75
34	—Spinal High Frequency Electrode.	*Bite*	.75
50	—Universal Handle for ⅝″ Electrodes.	*Bolus*	1.00
53	—Glass Handle (Vacuum) for Indirect Treatments.	*Bismal*	1.00
54	—Similar to No. 53, except that it is arranged to fit the No. 49 Shock Proof Handle. For indirect Treating.	*Banter*	.75

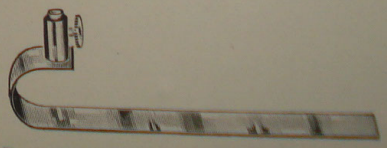


High Frequency Electrodes—Continued

No.		Code	Price
12	Rectal Insulated Glass Electrode	*Bazin*	$1.50
13	Vaginal Insulated Glass Electrode	*Beat*	1.75
14	Nasal Insulated Glass Electrode	*Bed*	1.50
15	Post Nasal Insulated Glass Electrode	*Beef*	1.50
16	Urethral Insulated Glass Electrode	*Bela*	1.50
17	Inner Ear Insulated Glass Electrode	*Belt*	1.50
18	Tongue Insulated Glass Electrode	*Benzol*	1.50
22	Ozone Generator—Complete	*Bidwy*	10.00
23	Heavy Glass Special Urethral Electrode	*Gull*	1.00
24	Heavy Glass Special Throat Electrode	*Gum*	1.00
49	Insulated Handle and Cord for ⅝″ Elect.	*Block*	3.50
61	Insulated Throat Electrode	*Breath*	1.50
	Complete set of Snow's Electrodes, Nos. 1. 2, 3, 4, 5 and 6		3.50
609	Diathermy Disc, 3″ Diameter	*Graft*	0.75
606R	Rubber Handle for Diathermy Discs	*Jecur*	1.00

Insulated Shock Proof Handle for High Frequency Electrodes

Many operators complain of the danger of shocking either themselves or their patients with our regular No. 50 Handle, on account of the exposed metal connection. We therefore designed the special Insulated Handle, No. 49 (see illustration on page 26), which has no exposed contacts and is absolutely shock proof. Made entirely of one piece of hard rubber, with the heavy insulated connecting cord fastened securely to the spring brass clamp inside. No. 49 Handle and Cord, Price $3.50.



No. 618 Liquid Bath Connector described on page 20 **Price $0.50**

Fulguration Electrode No. 20

Fulguration is the best known method of applying the High Frequency Current for the removal of Warts, Moles, Nevi and similar growths. When used in connection with this portable machine, most excellent results can be obtained in the removal of Neoplasms of the Urinary Bladder, and for the destruction of Cancerous Masses. Our No. 20 Electrode is supplied with three tips of different shapes for all surface work, and specially prepared Rubber Covered Steel Wire for introduction through urethral Catheters or Cystoscopes will be furnished if desired.

No.		Code	Price
20	Fulguration Electrode, with 3 tips	*Gadol*	$2.00
40	Fulguration Wire, Rubber Covered	*Gag*	25c ft.

(Illustrations on page 32)

No. 51—Heavy Insulated High Frequency Cord

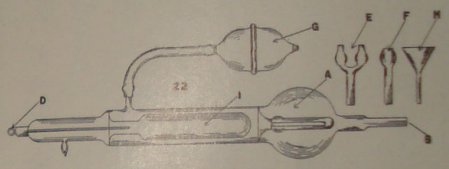
This cord is made of a stranded Copper conductor covered with several layers of pure Gum Rubber. It is perfectly safe to touch any part of this cord even when passing considerable current, as the Rubber covering is heavy enough to afford ample protection. Cord is very flexible.

At one end is mounted our standard cord tip, which will fit into any of our machines; on the other end is fastened a special spring clasp.

No.		Code	Price
51	—Heavy Cord, 4 ft. long	*Gait*	$1.00
51-5	—Heavy Cord, 5 ft. long	*Hirtz*	1.20
51-6	—Heavy Cord, 6 ft. long	*Hoche*	1.35
51-7	—Heavy Cord, 7 ft. long	*Hodge*	1.50

Ozone Generator No. 22

An *all glass* Ozonizer, made in one piece. Has two compartments, one for holding the purifying oils (we furnish an ounce each of Oil of Eucalyptus and Oil of Pine Needles with the electrode), and a Vacuum chamber to which is connected the wire from the High Frequency Current.

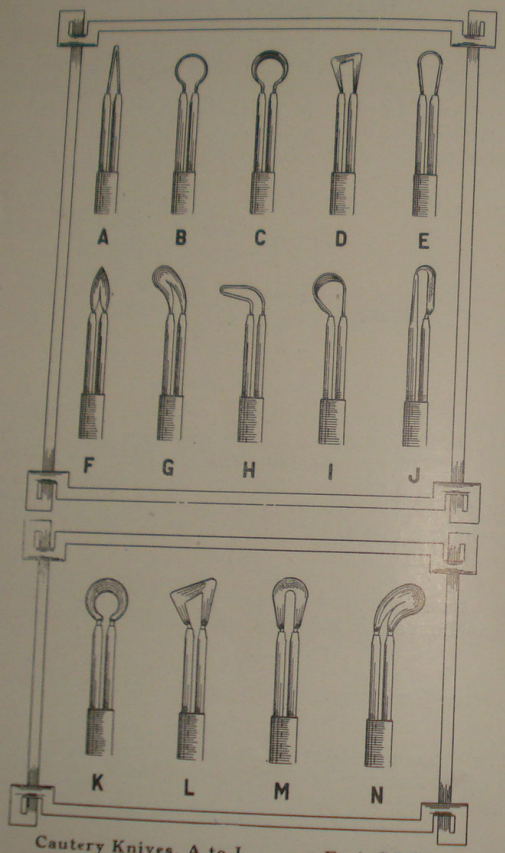


Connection is made at "D," the chamber "A" partly filled with the neutralizing oils, and the generator grasped firmly at "I." The current passes from the active Electrode "I" through the air space to the hand, filling the outer chamber with pure ozone. Nose piece "E" or mouth piece "F" is connected with rubber tubing to end "B." Air is gently forced through by means of bulb "G."

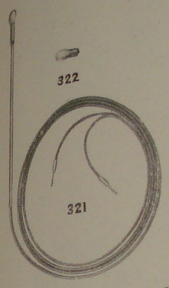
The ozone impregnated vapor is inhaled by the patient, and is an excellent aid in treating diseases of the respiratory organs.

No.		Code	Price
22	—Ozone Generator, complete as illustrated	*Bidcy*	$10.00

The ozone generator is not furnished with the cabinet, but is an extra that may be added to equipment if desired at price specified above.



Cautery Knives, A to J — Each $0.85
Cautery Knives, K to N — " 1.10



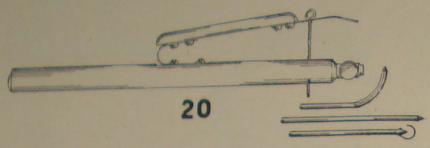
No. 322 Lamp, Price $0.50
No 321 Handle & Cords $1.15
Complete $1.60 1.75

No. 311 Metal Treatment Handles ~~$0.75~~
No. 312 Treatment Cords $0.50

No. 316 Felt Pad Electrode and Handle ~~$0.50~~

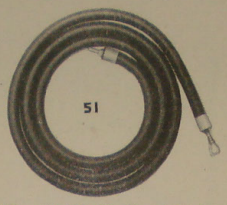
No. 410 Chair Pad $10.00 12.00

No. 52
Auto Condensation Handle ~~$0.75~~

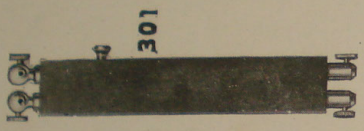


No. 20 Fulguration Electrode $ 2.00

Described on page 28

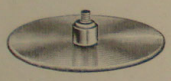


No. 51 H. F. Cord $1.00/.25

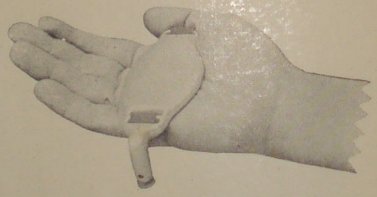


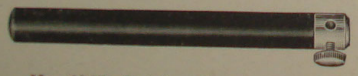
No. 301 Cautery Handle $1.75

No. 306 Cautery Cords $1.00



No. 609
3" Diathermy Disc $0.75/.75





No. 606R Rubber Handle $1.00

No. 614 Diathermy Hand Electrode $1.25/1.40